

200

30017447.m MATGRSPCFYIEELNKYQQKNGVEVRYCELAKTGPPHNFRFTYQVIIDDKKEYPKAEGRSKKEAKNAAKLALEIINKDRKSVSFSSQLTTNIPGEPPIENYIGRLNTISQKKNLCVTYEECKSKGDGP  
PKR.h MAGDLSAGFFMEELNTYQKQGVVLLKYQELPNSGPPHNDRFTFQVIIDDKKEYPKAEGRSKKEAKNAAKLAVEILNKEKKAVSPILLTTNSSEQLSMGNYIGLNRITAQKRRLT  
6755160.m MASD-TPGCFYMDKLKNKYRQMHVAITYKELSTSGPPHNDRFTFQVIIDDKKEYPKAEGRSKKEARNAAAKLAVIDLNENK-  
9506993.m MASD-TPGIVYDKLKNYSQIKHVKIIYKIEISVTGPHDNRFTFQVIIEEREFPEGEGRSKQEAKNAAKLAVEILDNENK-  
2phk\_PKA  
113r\_PKA  
2erk\_Erk2  
1jwh\_CKII  
lias\_TGFbR

210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390

400

30017447.m ESPSENCFSTNASERSDNNGSTLNSSSVSPGDGSRNNSRKVRSRAPTFVSPVKTEGNIYQUNERLNDTPEVCP*T*sC*F*PEVPEVAKHRD**K***I**N**V**H**C**N**D**G**-**H**D**D*  
PKR.h ESSSEGDFSDATSEIN-SNSDSLNSSSLLMN-GLRNQRKAKRSRAPRFDPD**M***K**E**T*-KYVVDKRCFM**D***M**K**E**T**E**L**C**S**G**F**C**O**V**F**A**K**H**R**D*  
6755160.m FSSSS-SMTSNGVSVSAGPSSENVFTN-GLG**E***N**K**K**S**G**V**K**V**S**-*PDDVQRNKYLD**D***A**R**F**N**S**D**E**D**E**B**E**C**G**F**C**O**V**F**A**K**H**R**D*  
9506993.m FSSSS-SITNSASQSAGG-RDFEDIFMN-GLRE-KRKSGVKVP-  
2phk\_PHK GFYENETPEP**I***L**R**V**S**S**V**R**C**H**P**T**C**R**A**V**I**D**V**T**G**G**S**F**S**A**E**V**O**S*  
113r\_PKA SQNTAQDLD**D***R**D**R**I**K**T**L**G**T**S**F**C**R**V**M**V**K**H**K**E**S**G**N**I**V**A**M**I*  
2erk\_Erk2 QVEDVCPRTNTNSYVGEAYCNVCSAVDNINKVRVAIKKIISPFHEOTYCORTRKIDLRFHENITQ-  
1jwh\_CKII HVEWGNODDYOLRKGRKSYSEVEPAHNTINNEKVVVKIPLPVKKK-KIIRKEKILDENRGG-  
lias\_TGFbR LIVVORTIAARTIVLGESET**I***C**R**F**G**E**V**R**K**R**G**E**V**A**V**K**I**F**S**R**B**R*  
500 510 520 530 540 550 560 570 580 590

600

30017447.m KEDGRALDFQQITITGVPVYIHSQOLLHDLRPGNIFLVAMT-QNKICDFCLVITYKND**E***T**R**S**K**K**G**L**R**Y**M**S**P**Q**L**SSV*  
PKR.h KLDVLALEFEQITTKGVDTYIHSKKLHDLRPGNIFLVAMT-QNKICDFCLVTSKND**G***R**T**R**S**K**K**G**L**R**Y**M**S**P**Q**L**SSS*  
6755160.m KVDALALILDLYEQIVTQVEVYIHSKKLHDLRPGNIFLVAMT-QNKICDFCLATALEND**G***K**S*  
9506993.m QEDALVILEQIVTQVEVYIHSKKLHDLRPGNIFLVAMT-QNKICDFCLATALEND**G***N*  
2phk\_PHK SEKE-TRKIMRJLLEVICLHLKLNIVHDLRPGNIFLVAMT-QNKICDFCLATALEND**G***N*  
113r\_PKA RFXDPHAFYAAQIVLTFBYLHS**L***D**L**I***Y***L**R**D**L**P**E**N**I**L**D*  
2erk\_Erk2 HLSVLPKALD**E***H**L**K**A**L**D**B**N**Y**T**T**C**D**K**I**D**F**L**A**R**V**K**G**R**T*  
1jwh\_CKII -DYDILRFYMYEHLKALD**E***H**M**G**I**M**H**R**D**V**P**N**W**D**H**E**I**R**K**U**R**L**D*  
lias\_TGFbR KALSTASGLAHMHEIVGTQGKPAIHRDLKSKNPKKKNG-TCCIDLSIAVHRDSATDTIDIAIHRVCKRVMAPEVDDDSINMKHFESPKRABLYAMSLVEIARRCSIGGI  
510 520 530 540 550 560 570 580 590

610 620 630 640 650

30017447.m T**I***L**K**E**N**V**I**E**K**K**R**N**T**C*  
PKR.h T**I***L**T**V**K**K**S**P**E**K**N**E**R**T**C*  
6755160.m T**I***L**A**E**R**N**I**S**E**K**K**R**N**T**C*  
9506993.m T**I***L**A**E**R**N**I**S**E**K**K**R**N**T**C*  
2phk\_PHK HF<sup>FF</sup>QQY  
113r\_PKA WFAITTDIAIYQORKVEAPPFKPFKFPGDTSNFDDYEEEEIRVXINEKCGKEFTEF  
2erk\_Erk2 LEQYYD-SDPEIAREAPFKFDMEADDLPEKEKLKELIFEETARQPGYRS-  
1jwh\_CKII NQHLVSPALDFLDKLLRYDHQSRLTAREAMEHPFYTVVKDQARMGSS-  
lias\_TGFbR KIMREC**W***A**G**A**R**L**T**A**L**R**I**K**K**T**L**S**Q**Q**E**G**I**K**M*